

# The Catholic Educational Review

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## WHENCE COMES EDUCATION?

Education, taken as a whole, its philosophy and motives, mechanism and results, is perhaps the most intimate distinctive feature of modern life.

Its influence is world-wide, its prestige irresistible, its power, social and economic, is co-extensive with human culture and human efficiency. To it are pledged the material resources of every State. It is the pathfinder of mankind in face of the unknown and the possible, its pilot across the obscure wastes of ignorance and error.

War itself, in the vision of a recent famous cartoon, is henceforth a work of the schools. All the driving forces of mankind and life have insensibly been drawn within the range of its spell. Wherever civilization has ousted barbarism, peopled the solitudes, or uplifted the savage, education reigns supreme. In brief time it has transmuted ancient forms of government, and already seems to be transmuting the newest and most popular of those forms.

Imperialism and aristocracy, commerce and industry, the tenacity of class and the prestige of wealth, are daily submerged by the rising tide, so to speak, of education. Under this banner the natural man moves out to conquer the future, if not himself, though for what definite end he is as yet unable to set forth in any satisfactory formula.

Leaving aside grave considerations apropos of the nature and uses of education and its influence on modern life and thought, we may rightly ask from what far-away source has arisen so great a power and how it has reached such a commanding eminence among the outstanding factors of the new life of mankind.

At the opening of the scholastic year, when so many Catholic

teachers prepare, literally, to devote their lives to every task and call of education, such a query is not only interesting, but in a way vital.

To many non-Catholics it will seem incredible that education owes to the Catholic Church its existence, its nature, its inner spirit and justification and to no small extent the means by which it continues to work. For one thousand years of medieval life the plastic hand of the Church fashioned the minds of the peoples and races of Europe and the Near East and made them what they are, despite much apostasy and ingratitude. She alone, for instance, kept alive the great key-art of learning, the art of writing. This she did in a thousand monasteries from Constantinople and Rome to Upsala and Kiev. Thus were saved those hundreds of volumes of the Greek and Latin classics that look upon us today from the printed pages, let us say of the Teubner collection.

The modern science of palaeography, chiefly mediaeval handwriting, owes its matter, its infinite charm and its varied instruction to the countless scribes, whose tireless hands thus saved so many precious fragments of ancient learning. Without their incalculable service she could not have created and kept alive in every land of Europe the schools and libraries in which the tradition of learning, secular and ecclesiastical, was carried down the ages.

What that means can easily be read in the exhaustive works of Denk and Maitre, of Leach and Allain, of Denifle and Rashall, in the great national pedagogical collections, now growing and in the literary history of her orders and congregations. The Benedictine Order alone, by its unbroken succession of schools, pupils, teachers, manuscripts, music and illuminated books, kept alive at all times the spirit of the prince of Anglo-Saxon scholars, Venerable Bede, whose delight it was "to be ever learning, teaching and writing."

Amid the disorders of those centuries of transition, not at all dark, only young and raw, she encouraged the teacher and held his office in honor. She cultivated all the short cuts of learning, the manual, the book of excerpts, the anthology, the summary, the encyclopedia, invaluable aids, when printing was unknown, and books were rare and jealously guarded.

From Boethius and Cassiodorus to Vincent of Beauvais she

saved in this way many treasures of antiquity. By her tireless copying of the Scriptures, notably the Latin Vulgate, she endowed young and ardent races with correct and homogeneous notions of the Christian religion and with a vigorous and universal tongue out of which flowered eventually that incomparable rich and emotional life which echoes forever from the "*Dies Irae*" and the "*Stabat Mater*," the "*Lauda Sion*" and the "*Tantum Ergo*."

Through her schools and her tribunals she kept alive the Roman Law, that Savigny's vast learning exhibits to us as imbedded and vivified for centuries in the codes and the courts of the Church.

The Roman law and the Canon law were indeed as the two great beams on which rested morally the mediaeval order of civil and religious life. Without her Benedictines the traditions of old Roman agriculture would have perished, also the arts of road and bridgemaking, of viniculture, of irrigation and drainage and forestry.

For an eloquent living example let anyone go through, as I did recently, the fifty square miles of territory of the Grande Chartreuse near Grenoble and learn what the patient, humble, charitable, enlightened, toilsome monk did long ago for the soil and the peasant of mediaeval Europe.

Moreover, the Church spiritualized and sweetened all education, all life indeed, by her creation of the Gregorian music, now coming into its own again. This soothing, purifying echo of her picturesque public services haunted the imaginations and the hearts of a Catholic world that was then creating such things as chivalry, cathedrals and universities. It caused men and women to dwell in a purer atmosphere of spiritual harmony that bordered constantly on the divine and celestial until Dante came and it was finally blended and transfigured in his immortal song.

The great folios of that music yet survive, each page a dream of artistic lettering and romantic illumination that rouse in every modern beholder a painful inferiority complex. What patience, regularity, truth, vigor, earnestness in a few square inches of lambskin! What a refinement of the most delicate and tender religious sentiment within the tiny circle of one letter of the Latin alphabet!

Modern French writers, like Courajod and Male, on the mediaeval development of the cinquecento schools of religious painting and sculpture insist on those illuminated books of Flanders and Northern France as the true inspiration of the numerous artists whose genius and ambition came to a head one day in the Van Dycks, the Quentin Matsys, the Giulio Claudios and the Bellinis.

As to the minor arts, the regular equipment of cathedrals, churches and chapels provokes an endless supply of altar-plate, of ornamented vessels of every kind, of crosses and crucifixes, chalices and patens, monstrances, pyxes, censers and objects of devotion without number.

In this respect a visit to the "Deutches Haus" at Nuremberg would enlighten many a Philistine. Similarly, a visit to the famous "Museum of Laces" at Bruges would delight all the readers of Montalembert's famous chapters on this lovely invention of Anglo-Saxon nuns, the Hildas and the Liobas of that remote day.

Much detail evidence of the educational function of the mediaeval Church can be read at one's ease in the meaty and delightful books of Dr. James J. Walsh, whose popular services in this respect cannot be too highly estimated. His recent work on "What the World Owes to the Catholic Church," summarizes to some extent his previous contributions and ought to be memorized by all our advanced students.

The recent edition of Davis' "Mediaeval England" offers an up-to-date volume. A storehouse of rare information is accessible in Kenelm Digby's "Ages of Faith" and his "Broadstone of Honor," also in the monumental works of Jansen and Michael on the mediaeval history of the German people, not to speak of Lina von Eckenstein's "Women Under Catholicism"; Adolph Franz's "German Woman in the Middle Ages," and Leon Gautier's exhaustive work on Chivalry. Similarly, Viollet's "History of French Mediaeval Architecture" is a revelation of the admirable sense of aesthetics and mathematics that long connoted the mediaeval French thirst for beauty and truth.

Like an atmosphere, Catholicism insensibly infused and sustained every educational activity and interest during the ten centuries that follow the collapse of ancient civilization.

Within the narrow limits of Paris, for example, its citizens



could appreciate the daily growth of the French language in lucidity, power, and directness under the stern tutelage of scholastic Latin along the reaches of the "Rue du Fouarre."

In a not dissimilar way Italian and Spanish, even English grew to their high estate in the vast and long-drawn-out nursery of Catholicism, and were easily conscious of the benefits they enjoyed through the unity and universality of the influence of a common religion on diction, style and language generally.

It was not amid the infinite educational beneficence of mediaeval Catholicism that its right to teach could be doubted, or its services belittled or denied. The mediaeval world was well aware of the fact that its immemorial religion was mother and nurse of its intellectual life. Had it suspected the ingratitude and the ignorance of later ages it would have acknowledged its immense debt in some complete and monumental way.

✠THOMAS J. SHAHAN.

## THE LAW AS A CAREER FOR THE COLLEGE GRADUATE

How to live, not in the mere material sense only, but spiritually as well, is the aim of our education. Instruction in the stored wisdom of the race has but enkindled strongly our desire to develop, to educate, to bring out all our faculties and powers to the highest for the good both of ourselves and others, that we may live more completely. This is peculiarly the urge of the college-bred man who has been imbued with the spirit of Jesus Christ. He realizes that the true motive of human activity is service, service to God and service to fellow-man. While the larger appreciation of the spiritual and intellectual will ever remain the priceless boon and best fruit of college training, the urge forward, upward and onward of the collegian will carry him beyond the average man to greater heights of accomplishment and success because of his college training, when he exchanges the discipline of the college for the discipline of life. The college-bred man has the golden key to the multifarious methods of service open everywhere whereby he may be beneficial to others and useful to himself and his self-maintenance. Particularly has the collegian the golden key to those professions which from time immemorial have been termed the three learned professions, namely, theology, law, medicine.

What attractions has the law as a career for college graduates?

The Law: "Her seat is the bosom of God; her voice is the harmony of the world; all things in heaven and earth do her homage, the very least as feeling her care, and the greatest as not exempt from her power." (Hooker.) The character of the study requires that he who would be a great lawyer must be a great and good man. To this endowment of character the student who would succeed at the law must add industry, zeal and enthusiasm that he may make the steep and rugged but not impossible ascent to the goal of his ambition. Indeed, the law student enters school for life. This will develop vigorous thinking. There is no monopoly, for the field is fair and open to all. Certain it is, however, that the most effective training and preparation for the practice of law consists of a completed college education, a course in a Class A law school, followed by experience in a law office.

The opportunity for success in the highest degree attends such training. It is the prevailing experience that ill-trained applicants for the bar furnish the largest portion of incompetent lawyers. Some years ago, President Lowell published figures showing that the scholarship attained by students in the Harvard Law School followed very closely the record of scholarship made in the preceding collegiate work. Poor students in college were practically always poor students in the law school. The well-prepared applicant for admission to the bar has not only acquired some highly desirable items of knowledge but also has acquired the habit of doing well whatever he undertakes. This habit of doing well is far more important than individual items of information, since it enables its possessor to do highly effective work when he wrestles with any peculiar problems arising in the details of practice.

And the college graduate must realize also that today he enjoys in a sense a monopoly of entrance into the profession of the law by the most accredited avenues, the law schools that have received in a very real sense the approbation of the American Bar Association. August 1, 1921, the Section on Legal Education and Admissions to the Bar of the American Bar Association, on the recommendation of a special committee headed by the Honorable Elihu Root, some time Secretary of State, some time United States Senator, some time president of the Society of International Law and eminent jurist, adopted a resolution expressing the opinion that every candidate for admission to the bar should give evidence of graduation from a law school that shall require as a condition of admission at least two years' study in a college. The next day these resolutions were adopted by the American Bar Association, including the recommendation that the Council on Legal Education and Admissions to the Bar publish from time to time the names of those law schools which comply with these standards as well as those law schools which do not, and that such publications be made available as far as possible to intending law students. Provision was also made for the calling of a conference on legal education in the name of the American Bar Association to which the State and local bar associations were invited to send delegates, for the purpose of uniting the bodies represented in an effort to create conditions favorable for the adoption of these higher standards. This special confer-

ence was accordingly held here in Washington on Washington's birthday, 1922, during which these high standards were reiterated, and it was declared to be the duty of the legal profession to strive to create and maintain standards on legal education and rules for admission to the bar which would protect the public both from incompetent legal advisers, and from those who would disregard the obligations of professional service. It endorsed the law schools requiring as a condition of admission at least two years of study in a college, expressed further the belief that law schools should not be operated as commercial enterprises, and that the compensation of any officer or member of its teaching staff should not depend on the number of students or on the fees received. It voiced its conviction that it is essential that the legal profession should not become the monopoly of any economic class.

The legal profession has to do with the administration of law, and public officers are chosen from its ranks more frequently than from the ranks of any other profession or business. Most of our Presidents and most of our lawmakers are lawyers.

The progress of law schools has contributed to an increasing demand for law teachers. And remember that the best way to study is to teach. The recent law school graduate with a brilliant record as a student is more and more called upon to become a professional law teacher at the time of graduation or shortly thereafter. Besides teaching the law, the teacher has a promising field in giving opinion upon his specialties to other lawyers upon legal problems submitted. When we consider the improvements in the methods of teaching and the solid contribution made by the teachers to the science of law, the career of the law teacher is worthy the ambition of any brilliant young collegian.

The college man who has bestowed upon him the degree of bachelor of science, and can read intelligently a mechanical drawing, may find a wide and lucrative field of service in the patent law. The electrical companies, the motor corporations, mining metallurgy, and engineering undertakings furnish many opportunities for the patent lawyer.

A corporation as such cannot engage in the practice of law, for the license to practice is granted only upon proof of preliminary study for the required period, and upon fitness of character. Yet the efficient development of the economic life of our commu-

nities has sent the corporation into many parts of at least the business field, hitherto the preserves of the legal profession. We find everywhere in operation title insurance companies, trust companies and other similar legal corporations which require, however, many officials trained in the law, thus affording golden opportunities to young lawyers for service and advancement, as time goes on, to excellent positions as executives and trust officers.

However, the more especial functions of the lawyer still remain peculiarly his own—appearing for clients before courts of justice, pleading their cause, the preparation of briefs, rendering advice on legal rights and duties—and these functions cannot be delegated. No corporation can intervene between attorney and client without destroying this relationship of highest trust, involving complete devotion of the advocate directly to his client and his interest. These functions will ever remain the bright badge of service for the lawyer and win for him both fame and fortune. The lawyer is the high priest of justice. His clients, sensible of his usefulness, will not be found lacking in appreciation. When have you seen the lawyer hungry or his seed begging bread?

WM. H. DELACY.



## ENGINEERING AS A CAREER FOR THE COLLEGE GRADUATE

There are times in the lives of all of us when it is to our advantage to stop for a moment the spindle which weaves out the thread of life and to contemplate in retrospect the product we have woven and to consider, in anticipation, plans for the improvement of the experiences which will be written down in the books of time as the life products of our individual capacities and attainments. To those interested in education—and there are but few activities in life, which do not, in some way, pertain to education—such a period of self-analysis is officially offered to us by the national annual proclamation providing for the observance of a so-called "Education Week." It is my purpose at this time to use a few minutes of this week to point out to you ways and means whereby, in my judgment, you may profitably accrue to yourselves some of the latent advantages which life has in store for you. My remarks are addressed, more particularly, to those of you who have not as yet taken that first necessary step in the pursuit of success; namely, the establishment of a definite life plan of action. You may apply to "success" any definition any individual may choose to formulate for himself, and yet, I feel there can be no doubt, barring accidents, regarding the proposition that its assurance will be probable only to the degree to which the individual has established a definite goal and pursued a definite line of action to attain and surpass his objective. Every individual should aspire to make of his sojourn on this earth, an unqualified success, at least according to his personal interpretation of it.

Stripped of all extenuating phrases and compromising adjectives, success means self-satisfaction, and, to the normal mind as we know it to be constituted today, self-satisfaction must involve a mental condition attained by means of conventionally accepted material procedures, the sum total of which for any individual comprise what we call his career. Success, as I see it, should be based on the proposition that the mind is permanent or immortal and that matter is temporary or mortal, and it is therefore of greater importance to possess a wealth of mind than a wealth of matter as a result of our efforts in this life. If this

were all there is to it, the solution to the problem would seem absurdly simple. Let everyone concentrate on selfish, egotistic, mental development to the best of his ability and he must then necessarily, eventually, reach his coveted goal. But such is not the case; the simplest mental development makes us aware of our neighbor and that we must live this life as an interested member of society and that social relations and material conveniences are inextricably interwoven into the complicated network of human existence. Indeed, the very complexity of the pattern makes it essential for certain units of the human race to specialize their material efforts, some along one line, some along another, in order that the utmost possibilities in the scheme of the world's Creator may be realized. Hence, may we not conclude that, in so far as social existence is necessary, so also must we provide for the establishment of those material conditions which help to govern mental attitudes and make social existence possible? This, I submit, is the duty of the engineer. What, then, must an engineering career accomplish to be classed as successful? To say that his career has been successful, one must be in a position to feel, during the declining years of his life's span, that his mind is free from all stint of any one of the multiplicity of culpabilities and that the world has been appreciably enriched as a result of his existence.

An engineering career offers many attractive opportunities and advantages to the present generation of young men. In this connection it may be well to state first some of the advantages a college graduate enjoys over an individual without the benefits of college training. It is sometimes heard that a college training is a drawback in industrial life. This statement may be true, but only for certain cases which happily form a very small minority; but nevertheless there remains the problem of determining the advisability of college training for a given case. We assume that the reactions observed in all those in college here today prove the advisability of collegiate experience in their particular cases. Industry today is unquestionably governed by standardization. The very meaning of the word "graduate" implies the operation of a standardizing agency, hence the enormous advantage of a graduate over a non-graduate. Many large firms in the engineering world practically refuse, *ipso facto*, applications from non-college sources, and these same firms and others look upon

the backing of a recognized college as sufficient evidence to insure successful employment. In business for one's self, a college training supplies the necessary channels of contacts between individuals and firms, it standardizes procedure, and makes for efficiency and economy in transactions. A college graduate is in a position better to appreciate the finer things of life which his success may provide for him; hence his life is better balanced, and, for him, it is a joy and not a burden.

Engineering is a profession and partakes of all the advantages of the other professions; especially are its ideals and humanitarian influences of an inspiring nature. By use of the sciences it offers an avenue of operation between the trades, business bankers and lawyers. It controls the material conveniences which determine mental attitudes.

The present aspect of the engineering profession recognizes four major divisions and many minor ones. The former, listed chronologically, are:

1. Mining and metallurgical engineering.
2. Civil engineering.
3. Mechanical engineering.
4. Electrical engineering.

The mining engineer is interested in the location and the development of fuel and ore deposits. He discovers and perfects complete systems of operation that transform a latent gift of nature into a factor of social conduct. A lump of coal from the subterranean mines of Western Pennsylvania is made to account for the smile on Mrs. Jones' face in Southern California when she discovers that her minerally dyed red hat is the cause of her neighbor's envy, or the entire social life of the nation's capital is governed by the necessity of vacating the White House in order to permit the iron plumbing to be replaced with brass, lead and copper developed by the mining engineer.

The civil engineer holds the key position in the construction of great public and private works. He plans a skyscraper or gouges out the bowels of the earth for a railroad tunnel. Consider for a moment the social forces brought into play because of the construction of highways, railroads, water supply systems, sewage systems, sanitation projects, and many other similar activities of this branch of engineering.

The mechanical engineer is the czar of the machinery world. He controls power generation, makes cigarettes, prints newspapers, cools, heats and ventilates, builds dredges and transportation machinery, locomotives, cars and automobiles, tractors and aircraft and many others.

The electrical engineer is yet but an infant, but he has already revolutionized the world by his power transmission, utilization and communication projects. The mysterious power that answers his magic wand is the essence of control, which makes it, in its application, the docile slave of the weakest child and, in its enticing possibilities, the master of the strongest wizard. Electricity is to the material world what the nerve and the muscle systems are to the human body. In other words, electricity is, at the same time, an agent of control and a reservoir of power.

The minor branches of engineering are subdivisions of the aforementioned ones and are not yet fully recognized as divisions, either because they are insufficiently developed or are inherently very limited.

After a consideration of the above one may well say that the opportunities for a good engineer are practically unlimited; its advantages lie in its very comprehensiveness and versatility. Activities to suit practically all types of human natures, with all their varying shades of differences, may be found in the realm of engineering. So much so is this the case that men trained in engineering have worked their way to the front ranks in all activities of life; for example, consider the advantages of Mr. Hoover's engineering training in his World War activities, where the difference between success and failure, instead of being based on a matter of opinion, was based upon such practical facts as the difference between a living man and a corpse. Again, in his work in the flooded Mississippi Valley, engineering ability was the deciding factor in this important engagement. Therefore, an engineering course is in the nature of a basic course from which one's activities may radiate in all directions. There is probably no other one course in any educational curriculum which so well prepares an individual for the business of living on this world as it is today, as a good course in engineering broadened with certain fundamental principles of human behavior. In colonial and early national days, higher education

in this country and others was based on Latin and Greek reading ability. Since then a gradual change has been brought about, until today our basic educational ideas call for a liberal supply of those subjects concerned with the practical activities of living, a decided trend toward the recognition of engineering worth.

Let us now consider a few of the more definite advantages of engineering. The engineering profession never was in a healthier condition than it is today. It absorbs the entire output of our engineering graduates and is growing at least rapidly as college engineering graduates are increasing. Pay is good, employment is regular, work is interesting, and recreational possibilities are equal to those of any profession. Opportunities are unlimited, new lines of activities are opened up daily, ability is recognized, and good service is appreciated and rewarded. The "Lone Eagle" may isolate himself and work in single blessedness, or the sociable soul may find plenty of company and work in friendly concord. Each will find plenty to do, and much joy and happiness in the attainment of it. There is no keener joy than that of the master builder when he contemplates the spectacle which means to him the materialization of his mind's labors.

So much for the opportunities and the advantages; now just a few words in regard to the qualifications, practices and habits necessary to the engineering student who would assure success for himself. I have already pointed out the necessity for a definite purpose. Visualize yourself twenty or forty years hence, and, planning your course with this vision in mind, so guide your thoughts and actions that a safe arrival at your designated destination is inevitable. Truly, temporary defeats will mar the smoothness of your travel, but use them as a stimulant to your efforts and your nerve will never falter. In general I would suggest the following procedure for formulating and planning your career.

1. Select the general environment in which you want to do your life's work.
2. Choose a general line of work, such as building construction, oil, teaching, shipping, etc.
3. Decide upon one of the available companies or employers, and finally, pick, if possible, the department in which you wish to



be engaged. Remember always, when making a choice, that your best chance of success lies with the work you like best to do. It is dangerous to allow considerations of salary, social rank and the like to lead you away from your natural tastes. Once well started, your advancement will depend upon your capacity and your industry, the foundations for both of which you are at present laying in this university. Care in building this foundation now will prevent its crumbling decay later when strained under the load of a developing career.

With all his scientific interests the engineer must not, as a rule, stand aloof from public duty or from the society of his fellow-men. Engineering societies foster better understanding and mutual advancement, and membership in them should be considered a personal duty. Never allow yourselves to lapse into that unpardonable depth of social stagnation the evidence of which appears in the form of indifference in regard to your alma mater. Make yourselves interested in public welfare, for, after all, you are a member of society, and your nature should be reflected in it regardless of your specialized work.

Finally (as stated in substance by Professor Lucke of Columbia), engineering as a career must be a matter of interest to the entire public concerned with the problem of the most useful employment of its young men as a sociological as well as an economic question, and especially is this the case with the colleges and universities and the young men themselves. The career that engineering offers today to the bright young man of the right type is extremely promising. In every walk of life one finds young men with the will to work, especially at jobs that are interesting and free from monotony—young men with the creative instinct, an inborn passion to make something. The artist, the sculptor, the musician, the writer, the carpenter and the mechanic, the tailor or the builder, the true business man and the banker are all prompted with the same feeling rather than the profits that may be accumulated, and, fortunately, the majority of those that succeed are in this class. Every young man who feels that he would like really to do things—and there are probably many more than there seems to be—is a possible recruit for the engineering army, and for him engineering is a possible career. Of course, one must be provided with sufficient

mental capacity to absorb the training and later to acquire the skill and habits which makes the solution of engineering problems a vitalizing sport and an agreeable, tireless occupation. These exponents of engineering find it a most absorbing, clean, satisfying and unselfish game, the game of making nature work for man as man works for his fellow-men and himself, the finest and greatest game in the world.

ERNEST A. VALADE.

## ARCHITECTURE AS A CAREER FOR THE COLLEGE GRADUATE

The graduate in architecture has been provided during his college course with a fundamental knowledge of the subject-matter upon which the professional man bases the solution of his routine problems. Art is taught in the colleges. It is true, of course, that there is much about it that is instinctive, that cannot be taught. But there are many artistic perceptions that are tangible and lend themselves to exploitation in the schools. The architectural schools of America have the support of all professional bodies; in particular, the American Institute of Architects.

The graduate in architecture who has pursued his work in a member school of the Association of Intercollegiate Architectural Schools is assured that he has followed a course that has been sufficiently standardized as to include all the essential training and the subjects of which are well balanced and taken in proper sequence.

Each year changes are made in the standard courses with the view of bringing them more nearly to the needs of the exacting demands of the professional career. Obviously the best judge of what a course in architecture should be is the mass of the practicing architects. The consensus of its opinions is bound to represent the net result of what the schools provide as against what the architects themselves are called upon to produce.

A work of architecture is conceded to be something more than mere construction. A super-added element, the presence of which makes the building pleasing to the eye, is responsible for its classification as architecture.

A layman may readily understand the utility and the processes of construction of an edifice but may not easily interpret the aesthetic qualities of design.

The student in architecture is taught many things about design and in the end may be said to have acquired an intimate understanding of many of the attributes that combine to make for the beautiful. Science is neglected at no stage. It is continually kept in mind that architecture combines the notions of stability, utility, with the aesthetic or the beautiful. Were it

not for use of science as a most important asset, the art of architecture alone could be well taught in the academy. The attention of the student could be confined to drawing, water-coloring, perspective and composition. But structure is essential, and the student must be taught mathematics, physics, mechanics and other related subjects. In practice a business side to the profession appears and a student is partly prepared for his future association with money matters and business relations through the study of economics. Inasmuch as the larger ratio of present-day architecture is stylistic, history and the languages appear as essentials in the courses in architecture. Studies in the history of civilization, painting, sculpture and the minor arts are invaluable as corollary to the study of design.

The apprenticeship system of architectural education still prevails in some quarters, and it has its merits. Its shortcomings are, however, so pronounced that the tendency at present is very decidedly towards the college training for the professional career. It is admitted that the present college course falls short of perfection. On the average, courses are being made longer and perhaps somewhat harder. This is, of course, in the interests of securing better trained men, not of piling work upon the undergraduate. Five and six year courses have become quite common.

The ideal course seems to be one of nicety of balance between the artistic and the scientific. This reflects the opinion of the profession that architecture, while more of an art than a science, contains so many elements of the latter that this coordination must continue.

Theoretical training plays a most important part in the training period. Practical problems, such as an office-trained man is called upon to solve, are excellent. The wider horizon of the college-trained man is due to the problem in theory. Clear thinking, promoted by mathematics, coupled with a knowledge of the physical phenomena of the world of forces, stresses, etc., is requisite to success within the school and in after life. The use of good English and the ability to read French, German and Italian, likewise a knowledge of ethics and the fundamentals of business law, become sources of great benefit to those who would pursue their profession with thoroughness.

In the Middle Ages the architect became the master-builder through knowledge acquired on the scaffolding. The architect and the builder were as one, and the architect often understood the technique of stone-cutting. He was an engineer, but not any too well armed with a knowledge of the equilibrium of thrust and counter thrust except by results gained from his own experiments. His own experiments were often productive of much valuable experience, but occasionally ended in catastrophes.

Today the architect makes use of all of the formulae that govern scientific building. His attainments in the artistic field are also very extensive. With the present-day facility in travel and the bibliographies that are within easy reach, his task is quickened in accomplishment and much labor is saved him.

The college man "finds" himself in his senior year; he then begins, as a rule, to be able to draw well enough and to think well enough to solve problems of a fair degree of difficulty. The work of the average practitioner is quite along parallel lines. The graduate has enough of what is necessary to make the step from school to office-draftsman, or even to permit him to enter active practice immediately. Of course, the average graduate does well to accumulate much practical experience before embarking for himself. The present-day problems of architectural design are of such varied and intricate character that there is much specialization. Some find commercial work, others residential work to their liking and capabilities. Students who have displayed aptitude in mathematics become valuable as superintendents of construction. Others, who have artistic skill beyond the ordinary, become delineators or specialists in the presentation of perspectives.

One of the leading architects of the middle west ranks high as a banker and is expert in the investment field. Another acquired his reputation as an architect on account of his prudent and economical designing in the field of industrial building.

The magnitude of the building industry is now very great. It surpasses in volume that of any previous period. The sums of money disbursed through certificates issued by the architects' offices are formidable.

Never before in the history of the world have brains, industry



and honesty been so greatly in demand. The building industry needs many recruits with many phases of preparation. To meet the economic demand that exists at present, and seems destined to exist for an indefinite future, a degree of preparedness is necessary.

It has been remarked that the rapidity and sureness of the development of American architecture depend primarily upon school instruction.

The evolution in expression must find correspondence in the evolution in instruction. The profession has placed its trust in the school.

The profession now possesses greater vitality than in the past. It has been deemed a necessity, and its contributions have been found to be essential to our general well being. It is not whimsical or transient. The majority of the states now register architects, and graduation from a school of recognized standing facilitates registration. The practice of architecture confers upon one the fullest measure of creative experience. Not the least of the advantages of active practice is the contact with human affairs. Its importance as an influence of general cultural value is also well recognized. The possibility exists to enjoy one's work in the doing of it. The contact with the world of art attracts many, and the sacrifices that are made for it are indicative of the esteem in which it is held. Pecuniary reward is not lacking as a return for ability and industry, and, while the financial rewards are at present not entirely satisfactory to the profession at large, the public will doubtless in time respond to the value of the architect's services. As an adviser, planner and consultant his need is on the increase. In business circles it is now considered very poor business policy to endeavor to build without the services of a competent architect. The larger organizations have become the leaders in making use of these talents.

The capacity of the college man to obtain, during his student career, a sufficient knowledge of the wide variety of studies given is not to be doubted. Each year a fair number graduate from the architectural schools. Many afterwards succeed, some fail, while others abandon their original careers and undertake other studies. Many of the mediocre talented men persist.

Some of our noted architects are more persisting than talented. The college man should have not less capacity for hard work because he has been in college. Architectural practice is hard work.

Much midnight oil is burned in college; more in architects' offices. The future, then, while full of promise, is nevertheless beset with some thorns. The fighting spirit and the keen competition of student days are an excellent preparation for after life. There is advantage to be gained from all of it, and effort is thereby accelerated and work made more pleasant. The awards, medals, prizes and scholarships distributed in college years have their counterpart afterwards. There is even a glamor, an element of the dramatic, in creative work of an artistic nature. The sheer size and daring of modern enterprise in building holds attraction for many. Few men in practice would leave it for other fields; and the college man qualifies for it if he is to a degree idealistic.

Most of the best work of the day goes to the well-trained men. The building public is now too cautious, too conservative, to have to do with the poorly trained. Governmental work is now well done. Politics plays little part in the selection of architects for such work. Merit is the deciding factor. Country houses, in which America excels, are projects given most intense study of the skilled practitioners. Many of the oil-distributing companies now have their filling stations designed by architects of repute. In the movies, sets are well studied and designed by capable men.

Churches, schools and university-group plans are now done better than ever before. In steel-skeleton and reinforced concrete design America has taken the lead over all other countries. Opportunities exist in all of these fields. The interior decorator, the landscape architect and the town planner are specialists—research workers after graduation in architecture.

Architectural designers now do automobile bodies, department store display windows, the interiors of ocean liners and inaugural pageants. In fact the illustrator, etcher and mural painter all admit architecture as the mother-art basis of all serious academic study in the fine arts.

College life should be conducive to proper social and business

relations in the case of future careers. The various activities of college life at their best fit in with the after life of the graduate. The architectural society on the campus becomes the Chapter of the American Institute, and its leaders are potentially the future chapter officers.

Many art schools exist which are taken very lightly by the professional bodies. Many chapter committees devote considerable time endeavoring to have them closed. The college architectural schools are, on the contrary, supported largely by the professional bodies. The Beaux Arts Institute of Design, collaborating with all of the college architectural schools, is entirely supported by its members, who are practicing architects interested in architectural education.

The Institute does its work in full confidence of the value of it to the college student. It reflects the spirit of the Ecole des Beaux Arts in Paris. It is necessary, then, to be thorough and to be prepared. Architecture is not an indefinite manifestation but of value permanent to the community and to the individual. The college trained man would appear to be facing in the right direction.

In a document recently issued by the American Institute of Architects, approved and adopted by the sixtieth convention of that organization, a statement is made which defines the requirements for professional practice.

This statement is as follows:

The profession of architecture calls for men of the highest integrity, business capacity and artistic ability. The architect is entrusted with financial undertakings in which his honesty of purpose must be above suspicion; he acts as professional adviser to his client, and his advice must be absolutely disinterested; he is charged with the exercise of judicial functions as between client and contractor and must act with entire impartiality; he has moral responsibilities to his professional associates and subordinates; finally, he is engaged in a profession which carries with it grave responsibilities to the public. These duties and responsibilities cannot be properly discharged unless his motives, conduct and ability are such as to command respect and confidence.

As may be well judged from this statement, which is the opinion of the profession, vitally concerned with its own future

welfare, a number of qualities of mind and training are required for the honorable and capable practice of the profession. It would seem, too, that, in such a fertile field as stretches out before him today, the college graduate of character, ability and ambition might reasonably be expected to succeed.

FREDERICK V. MURPHY.

## CHEMICAL RESEARCH AS A CAREER FOR COLLEGE GRADUATES

To question a chemist on his fondness for research is similar to asking a fish if he likes water. As the fish finds the water necessary for his existence, so the man who has research in his blood is only at home in the laboratory. The fish must swim, the researcher must search.

This common desire to unravel nature makes researchers members of a peculiar clan that one chemist has designated a sort of "Fifth Estate,"<sup>1</sup> in his words:

This Fifth Estate is composed of those having the simplicity to wonder, the ability to question, the power to generalize, the capacity to apply. It is, in short, the company of thinkers, workers, expounders and practitioners upon which the world is absolutely dependent for the preservation and advancement of that organized knowledge which we call science.

Chemical searchers are a branch of this caste of the elect. They must meet all the requirements. One can only be born into it; no adoption, no matter how legal, will hold. The simplicity to wonder is innate. The ability to question means also the ability to formulate an experimental question, whose answer is *yes* or *no*. The power to generalize means to be able to connect the results of research in simple relation. The capacity to apply is that ingenious bent that, when it is dominant, leads to engineering.

Three main lines of endeavor in chemical research are open to the college graduate: First, industrial; second, governmental; and third, the type of research carried on in universities.

The first, industrial, must be made to pay and is direct and efficient. Such a chemist must have his fingers on the pulse of the world markets—supplying demand, foreseeing tomorrow's needs. Besides his scientific ability, an industrial chemist must have executive power, keen initiative and dynamic energy to bring his venture to a successful termination. The second opening is governmental research. It is systematic, extending over long periods of time, and is usually fruitful of some direct bene-

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<sup>1</sup>"The Fifth Estate," by A. D. Little, J. Franklin Institute, 198 (No. 5), 1924.



fit to the public. The third line of endeavor is the most appealing, especially to one who has an excess of creative imagination. He usually aspires to make over the world in his own special way. This requires his individual methods; and his specific problems cannot be fitted into any general system. He is usually, and willingly, forced to be a free lance.

The industrial worker has usually a strong practical bent and has replaced, to a large extent, the former inventor. The government worker receives less pay on the average than the industrialist, but to offset this disadvantage his working hours are not as long and in times of industrial oppression his position is secure. He has a bountiful supply of equipment and unlimited resources at his disposal, but his efforts are restricted to one particular field. This division is probably the one where the most varied and valuable experience can be gained, provided the research worker changes departments frequently. The college graduate taking up university research is often handicapped by lack of apparatus, but this is no obstacle to a true seeker after scientific data, and this deficiency frequently results in newer, simpler methods of procedure.

The qualities of these definite types can best be illustrated by giving contemporary American examples in each field and describing briefly what each has achieved.

One of the foremost chemists of our times is Irving Langmuir, chief chemist for the General Electric Company. His first important problem was industrial, namely, the effect of various gases at different pressures on the life of tungsten filaments in electric lights. He found immediately that his need was an efficient high vacuum pump, which he perfected in a very short time. With the aid of this pump he obtained the answer to his question, and in characteristic research style he found more answers than bargained for. His data provided the basis for an adsorption formula and a theory of the structure of the wire and eventually of atoms and molecules.

The next prominent industrial chemist to be considered is Bakeland, past president of the American Chemical Society and discoverer of Bakelite. This was no chance discovery but a successful outcome of a long and comprehensive series of experiments lasting over several years. In contrast to Langmuir, Bakeland turned his attention to the possible applications of

Bakelite, and today it is one of the important constituents of all modern electrical equipment.

A government worker of note is Cottrell, whose contribution to industry is the Cottrell Precipitator, an apparatus for removing smoke and dust from air. It has also been applied to the manufacture of sulfuric acid. This achievement resulted in wealth for the scientist. But in characteristic style he donated it to some philanthropic purpose and became a plain but not obscure government chemist. Cottrell is now director of the Fixed Nitrogen Laboratory in Washington, which is an important position both in peace and war.

A university research chemist of repute is Theodore Richards of Harvard, known for his extra-refined determinations of atomic weights, which at first glance may seem impractical, but as these are the basis of all quantitative determinations, their practicality is inestimable. Just at present he is engaged on the problem of the explanation of the large internal pressures of liquids, which is considered, for all ordinary purposes, unsolvable. But before such an intellectual giant any barrier may yield.

Finally, we reach a pure theorist, G. N. Lewis, professor of chemistry at California. His contributions have been mainly in the field of thermodynamics, a most abstruse realm. Not content with really understanding entropy he has proposed two new functions, free energy and activity. The latter is especially illusive. But with its aid he has connected numerically results which were formerly incomprehensible and unrelated, and, even though his concept be wrong, he has given the incentive to prove him wrong, which has always borne fruit in the history of science.

The splendid careers of these scientists we have just reviewed should stimulate those college graduates who are scientifically inclined to emulation. It takes great ability to succeed, but the reward is exceeding great. These men never faltered, but were driven by an inner unquenchable curiosity that must see, or struggle mightily to try and see, even to the Ultima Thule.

In conclusion I would say, to any young man who considers chemical research as a career, to be sure he feels the call and that he is not a dilettante, for it is a vocation as compelling as any, and to its credit very few aspirants turn back. As a test all candidates should ask themselves this question: "Do I

crave experimental knowledge more than food and am I willing occasionally to forego the latter to achieve the former?"

All cannot occupy the limelight by producing startling results, but even the humblest searcher may have reward enough if he add just an ell to the wide frontier of science and thereby extend it just a little.

SIMON KLOSKEY.

## BUSINESS RESEARCH AS A CAREER FOR THE COLLEGE GRADUATE

There is an appropriateness, as well as timeliness, in setting aside a week in the beginning of the school year as Education Week. There is a uniqueness in presenting to you, as college men, this period for the consideration of education in a strictly academic institution; it must necessarily seem odd to you as students as it is seasonable to your instructors that such a commonplace topic as education should be allotted one week in which its needs, advantages and uses should be discussed.

Almost as wholesome as this Education Week is the injection of business as one of the topics to be considered in career making.

However, in these days when the world through its governments is generous with gifts and opportunities, when the luxuries of other centuries become the necessities of our days, the average citizen does not consider the sources, knows naught of the conflicts nor the men whose ideals have so swayed nations and races of men to make everyday needs of services, that even only a few of previous days wanted.

The world knows the advantages of education; but education in business as a career in recent years has had a lease of life and today is a newer topic. Yet there is an economic soundness in submitting for your consideration the needs, advantages and the requirements of an education in business. The necessity of earning a living is apparent because, while it is ordained for man once to die, the average citizen has to live long and during that life has to be fed, clothed and sheltered. To you who will soon enter that real world that renders eking an existence less irksome in the economic sense, the presentation of ideas and the installation of ideals is a wholesome and satisfying undertaking.

Today we find a university such as ours, besides training intelligent beings to be better humans, in addition to teaching the literatures, the languages, science, philosophy and religion, has set aside courses for the assistance of its student body for the attainment of material and tangible goods; the reason for these courses being to perpetuate these immaterial and intangible

studies that make possible civilization and the culture; this type of education insure progress and safety for people.

Irrespective of the content of your courses, whether in the realm of literature, arts or philosophy, or the more prosaic sciences and the necessary law, a study of business is helpful. One can matriculate in the school of trade and hard knocks, and later take a post-graduate course in the university of practical experience at a prohibitive price or register in a school of business administration and take the courses that will educate all the good that is within him; secondly, inculcate all the excellent characteristics that convert a man into a gentleman; thirdly, become an income producer while he retains a sound mind in a sound body. This type of education for business is not only an investment but an insurance.

That an education in business is a good investment, that it is adequate insurance against total or partial failure, is also true; but let us be sure that the terms are understood. An investment is a loan by one individual to another from which a periodic return is expected, with the understanding that the amount loaned is returnable upon demand or at a fixed determined future time, that the principal sum and the return will be stable yet marketable. In giving students a liberal education in business, your parents, your guardians, as well as your scholarship donors believe that the users of these opportunities will give back a periodic return, show an intimate insight in a type of investment, human nature, seldom discussed in textbooks. Time does not permit a digression to show that a parent-investor is entitled to a reasonable return for a number of years for the investment made in your education. Nor is there a period allotted here and now to demonstrate that a business education is a higher type of investment than many others, that the regularity of income, the stability of salary, and position and the field for advancement are guaranteed. But one must show that, as there are many types of investments, some like government securities, give a small return regularly and others, purely speculative, either promise or proffer large returns sporadically, so also we find in students as in men, some stolid, safe and always substantial, and others that are emblazoned on signboard and poster, blatant and bombastic today and unknown tomorrow.



You might want to know how much a college education is worth. This is easily worked out: capitalize your earning capacity at the normal rate in your community. You might want to find out what is the value of a college education. Simple again: find out the earnings of one of your classmates who did not continue beyond his high school year, compare this annual wage with your own earnings after graduation days, then capitalize the difference.

It is conservatively estimated that the college man is worth \$75,000 to \$85,000 today. Companies in the same industry or in the same type of business endeavor do not earn the same return each year because some are progressive, seeking new methods, new markets and new products, and others are exhibits in the museum of industrial history; likewise, while a college man's earning capacity is capitalized at \$75,000, there are some who just get a salary of \$25 per week while others are worth and receive more per day on account of application, industry, personality and aggressiveness. These traits of character are not formed in one day or one hour but are the surplus earnings of other years. Submitting solutions to exercises, making investigations, doing research work are only phases of studying and integral parts of a true education that constitute excellent training for executive work in coordinating diverse functions to production of profits in large enterprises.

To tell you, in 1927, of opportunities that will be yours in 1932, 1937, or in 1957, is not too difficult when you as students in history see how in a short span of one generation the mode of transportation glides from the automobile to the aeroplane, when miles of telephone wire become obsolete with the advent of the radio; when the partnership of yesterday becomes the octopus of a corporation tomorrow. In 1928 the 250,000 or more corporations will need at least two more additional minor officials; the 300,000 progressive business units of 1932 will need more trained men in manufacturing, marketing and management; many of the presidents of the larger units of 1927 will be eligible for retirement in 1937. What position do you want? What type of organization will you manage in 1942? What are the requirements for the position you are going to hold in 1932, 1942 or 1952?

The sturdy oak gives tannin for leather, gives crude benches to laborers or the perfect grained quartered oak for the costly panel work of the mansion, each part in its own way performing its own function well. Today, knowing the requirements for the executive position in trade, industry, commerce, finance and transportation, the courses of studies in the commerce group are coordinated so that the student who inventories himself and makes an appraisal of the requirements of the service he expects to render in the business world, can be prepared for the work he thinks himself best able to do.

One can see readily that an education in business will be an investment that permits you to give a reasonable return to your parent investor, and give you a profit large enough to repay the loan at maturity or to discount it. Sometimes, knowing the uncertainty of some events, a business man hedges, as the textile mill buys cotton futures, the baker purchases December wheat in July, and the careful business man insures the future against contingencies.

There are many types of insurances, each a coverage for a particular purpose. There ought to be protection against failure in the tomorrow to cover the young man of today; there is, for each one among you such a policy has been taken out by your parent. Insurance against failure by ones who believe you to be deserving of success, who have invested thousands of dollars against the chance that you will not be an income producer.

How strange, how odd, how unique it would be if this type of insurance were not owned by a strong, financial group of hard-hearted executives but by a group of the many mutually interested who are to be beneficiaries; stranger it could not be, because this type of insurance is written individually by the student in a school of business who sees in the assignments, exercises, and problems of his classes in commerce, industry, finance and economics as well as the laboratory details the projects, the undertakings, the construction work, the markets of the international or national enterprise when tomorrow comes his day to take up the duties, the responsibilities, as well as the compensation of the president.

Nevertheless one must always remember that insurance policies are cancelled on account of lapses in premium payments, on

account of the moral, financial, or physical risks of the insured, or they are paid in full at maturity. This type of policy may be cancelled if the student fails to live up to his part of the contract—that is, remaining an industrious student during his college days. It is voided if the applicant is not the good moral risk he has been considered previously; needless to say certain physical disabilities reduce the face value of certain policies and mental disease prevents recovering the maximum indemnity. Finally, the fact that you have such a policy in the form of a degree of Bachelor of Arts or Science is no warranty of success unless you have complied with all the requirements enumerated in this curriculum. You may have the diploma. Have you the training to observe facts, gather data, compile and arrange variegated items from which an intelligent conclusion can be drawn, that will coincide with views of experienced business men? Have you analyzed yourself? Have you overdeveloped any one unit. Is your will or your reason atrophied in your endeavor to become successful in one special field? Diversification of your investments by distributing your studies is apt to produce a saner, safer and better return in period of depression as well as in prosperity.

These, your college years, then will be an investment because you have ploughed back your profits and an insurance to protect you and yours against the unforeseen events that constitute your life. Make an investment of your college education so that it will be an insurance against failure of mediocrity in later life.

W. M. DEVINY.

## TEACHING AS A CAREER FOR THE COLLEGE GRADUATE

My subject might well be subdivided as follows: Teaching as a Career for the College Graduate; in the Elementary Grades, in the Higher Grades or High School, in the College, in the University. But in the few minutes at my disposal I can do little more than make some general remarks about my topic as a whole.

Up to the time of the war I would say that teaching had not been a popular choice as a career for college men. Among women, on the other hand, teaching had been almost the only career open to the college graduate. Furthermore, to women teaching had always promised a comparatively good financial reward, but to men teaching had never offered the large remunerative possibilities of so many of the other walks of life. And probably for these two reasons—that teaching was regarded so largely as the work of women, and that teaching could offer so little by way of material success—did teaching as a career fail so utterly to attract to its ranks the proper type of men. Indeed, the general feeling among both men and women seemed to have been: "If you cannot do anything else, then teach." This certainly was a serious situation for any nation to face. For, in spite of the triteness of my remark, it is nevertheless true that, next to the home, the most important influence in the moulding of a child's character is the school. Since the war, however, this situation has greatly improved, due in a great measure to a change in the two chief causes. The war opened up many new walks of life to women, who were not slow to take advantage of these opportunities, so that teaching has come to be regarded less as their special occupation. Also, especially in many of the public school systems, salaries have been made more nearly equal to the material remuneration of other professions. In fact only since the war has the business of teaching attained such a development as to be at all widely recognized as a real profession. In spite of this, however, the old derogatory notions about teaching are not entirely extinct today.

I have mentioned some of the conditions that seem to keep the college graduate away from a career of teaching. Let me

touch upon certain considerations that should attract him to it. The one that you know best, that has probably been set before you oftenest, sometimes with feelings of high tensity, perhaps with more of sentimentality than of sober reason, is the importance of the teacher's work as the second most influential factor in the upbuilding of the future generations of our people. The teacher is a moulder of soul and intellect. This of course is quite true, but because you are so well acquainted with it I shall pass on to the second consideration.

It is usually overlooked that the same challenge of hard work that is flung before us by the world of business and the professions, is also thrown out to us by the career of teaching, and that by the same token the opportunities of failure lie equally in all. In other walks of life it is the person with energy, intellect, and common sense who attains any great measure of success. In business the high salaries are given to those who can make a profitable enterprise out of one that has been on the way to bankruptcy. Today in the teaching world, as elsewhere, there are hundreds of workers of mediocre caliber who are struggling for an existence as would inevitably have been their fate wherever they had cast their lot. Today in the teaching world, as elsewhere, the demand is for the person with energy, intellect, and common sense, who can succeed where others have failed. And bear this in mind: The very fields of teaching that may appear to have few opportunities of success—as, for example, ancient languages—offer you the greatest challenge and correspondingly the greatest measure of success. "One of our departments is not a 'going concern'; we want someone who can establish it on a flourishing basis," is not an uncommon appeal from the colleges and universities of our country, and surely this is a task that would tax the powers of the most vigorous minded. Only the kind of character that would succeed in business or the professions could be successful here. Certainly it would not be a place for the person who had entered upon teaching because he had been unable to do anything else.

The objection which I have already mentioned as usually raised in this day of ours against entering upon teaching as a career is the low remuneration which generally prevails. This, unfortunately, has some foundation, although less so than



before the war. I have often wondered, however, whether it would be possible to get a general average of the income among the members of any profession, and whether, under comparison with the average salary of teachers, the teacher would really fare the worse. I am convinced that he would not. Consider this also: The earning period of a man's life in business and the professions often ends quite early. The physical labor necessary to business and the professions often becomes such a tax to the human system that retirement becomes a necessity long before the mind has actually ceased in its upward development. Retirement in such cases usually results in unhappiness. The teacher can continue in his career almost to the last day. He is not obliged to, and he does not, as a rule, retire. In fact, his efficiency is ever increasing, and his presence is always a greater ornament to the institution to which he belongs. If, however, the teacher should retire, he, better than anyone else, knows how to enjoy the companionship of books, a sweet comfort to a person in retirement. Consider also that much of a teacher's work may be accomplished within the precincts of the home, and he thus has the greater opportunity to enjoy the happiness and contentment of family life. There is little likelihood of a teacher's ever accumulating a fortune, but the likelihood is about as small of his ever going to the poorhouse.

Another attractive feature in the career of a teacher is the general high repute of the calling. Whatever a person may say about teaching as a career, he appreciates and respects a successful teacher. The grade school teacher, the high school teacher and the principal, the school superintendent, the college and university teacher are all highly respected members of their several communities. They are always treated with the greatest deference, and they are often called upon for advice or practical participation in the settlement of some local community problem. Thus the teacher's influence for good among his fellow-men is almost without limit.

Finally, with every good teacher, whether he be a university professor or not, the mind is ever on the alert to add some permanent improvement to the methods of teaching or some new information, great or small, to the sum total of human knowledge in his special field. If he has the true qualities of a teacher,

he cannot fail to do something in this way, and the joy that arises therefrom can be appreciated only by one who has actually had the experience.

What are true qualities of a teacher, and of what should his preparation consist? In common with all professions, which by their importance hold members so prominently before the public eye, a teacher's character should of course be above serious reproach; but especially true is this of the teacher whose duty it is to teach the youth in matters of body, mind, and soul, and who thereby, willy-nilly, assumes the position of a model of what he professes to teach. For this very reason is teaching a most befitting activity for followers of the religious life. The outstanding characteristics of a teacher, in my opinion, should be an infinite amount of patience, that not the least of the latent talent in a pupil may be lost; sympathy, that the pupil through the encouragement and understanding of his teacher may enjoy the acquiring of knowledge and profit thereby to the fullest extent; severity, that whenever reprimand may be deserved and beneficial it may be given; and as a directing guide for the proper exercise of these three qualities a generous fund of common sense.

Besides these qualities of character is the necessity of proper training. Several of my own teachers, whom I regard as especially successful in their field, have in a measure surprised me by saying that they had always planned to be teachers, even from their high-school days, and in some cases that they had actually decided then on the subjects that they would teach. Their thoughts and activities were thus directed to the one aim from their early youth; their careers were shaped with a view to obtaining a proper cultural background with increasing intensity in specialization as years advanced. Other successful teachers have definitely determined on their life's work later, some time during their college course, and in such cases the problem of adequate preparation may be serious. In all cases, however, the teacher should endeavor to prepare himself to teach subjects that he truly likes. He should not make his choice on the basis of better material prospects. Furthermore, the true teacher realizes that his period of preparation never ends, even though he may engage in teaching immediately on finishing

his college course. He should continue constantly improving himself for his work, taking full advantage of the many and varied opportunities that lie at his very door. Indeed, all this to a true teacher is a work of joy. He enters upon it quite naturally and spontaneously.

If a person to any appreciable degree measures up to the requirements for the true teacher which I have here laid down, he need not worry about due recognition and true happiness in the career of teaching. But let no one who has been or, in all probability, will be unable to succeed in any other work take up teaching. If you cannot do anything else, whatever you do, do not teach!

ROY J. DEFERRARI.

## TESTS FOR PERSONALITY TRAITS—A REVIEW OF THE LITERATURE

Intelligence tests have been, and are, extremely useful to the educator; but they have their limitations. After all, success at school is not wholly and exclusively a matter of intelligence. Many other elements enter in—desire to excel, tenacity of purpose, freedom from distraction, and other traits. These things, taken together, are probably at least as important as intelligence. Chambers (4), working with 257 students at Ohio State, found that the Pressey X-O Tests were about as valuable as intelligence tests in predicting college achievement. Brown's (3) "caution index" proved to be at least half as good as the intelligence test score for the same purpose.

This need for supplementing the usual intelligence tests with some sort of personality test is especially urgent in the field of vocational guidance. Success in business is not wholly a function of the I. Q. In business, even more than in the classroom, it is the whole man who succeeds or fails, not merely his disembodied intelligence.

For these reasons the growing number of tests for personality traits other than intelligence is of very great interest to the educator. These tests are rapidly improving in quality as well as increasing in number. While perhaps they are not yet well enough developed to take their place beside the intelligence test and the achievement test in classroom practice, there is every reason to believe that they will soon arrive at this stage. Already considerable use is being made of this type of test in mental hygiene and vocational guidance work in the colleges. When we look back on the progress made since Fernald's (10) pioneer work in 1912 we can realize that at the present rate we ought soon to arrive at very satisfactory tests. The object of the present paper is to review some of the more significant recent work in the field. The present writer has already published (12) a review of the work up to and including the year 1924. This paper, therefore, will be concerned principally with developments since that date.

*General Reviews.*—May and Hartshorne (30), covering the years 1920 and 1925, enumerate 196 articles on the subject of

personality tests, omitting all references to rating scales, to vocational tests, and to tests of more or less relevant knowledge, such as biblical information tests. May(29) and Kuntz(20) present reviews of the literature on the Downey Tests. Manson(27) has compiled a bibliography without comment on all the literature up to 1926. Watson(52) has published the most recent review to which the present writer has had access.

*Personality and Physical Traits.*—Is it possible to judge personality traits by measuring and observing physical type? Cleeton and Knight(6), in a classical paper published in 1924, answered emphatically in the negative. Since then, however, a certain amount of evidence has accumulated which tends to weaken the certainty of this conclusion. Sheldon(36) finds low, but, in his opinion, significant correlations between certain facial measurements and traits determined by rating. Kretschmer(19) and Wertheimer and Hasketh(53) show that extremes of character as revealed by psychotic reactions are associated with definite morphologic types. On the other hand, Brandenburg(2), studying 100 Purdue students, found no evidence of correlation between physical traits and personality.

*The Downey Tests.*—The Downey Will-Temperament Tests continue to be a subject of research. As in previous studies, the weight of evidence tends overwhelmingly to discount the value of these tests. Bond(1) finds zero correlations between Downey score and ratings. Kornhauser(18), working with college freshmen, obtained the same result. Stoddard and Ruch(40) reach the same conclusion. Hurlock(16) finds these tests unsuitable for children, since they have difficulty in understanding the directions. Downey and Uhrbrock(8) have tried to determine the reliability of the tests by re-tests after a one-day interval. Aside from the fact that this technique is open to very serious criticism, the obtained correlations are not very convincing. Uhrbrock and Downey(47) present a "non-verbal" form of these tests. However, since the directions are given verbally, one might call into question the "non-verbal" character of the tests. Besides, the new form of the test has admittedly low reliability and correlates poorly with the "verbal" form.

*Rating Scales.*—It is now only about five years since Rugg published his classical study(34) of the Army Rating Scale. His paper was entitled *Is the Rating of Human Character Prac-*



*ticable?* and his answer was a strongly implied negative. At the time the strongest pessimism prevailed. Since then there has been a very marked change of opinion. It is now known that, under carefully controlled conditions, rating scales will yield reliable results. This is due to improved technique. For instance, Symonds(41) finds that it is better for the rater to rate all the subjects on one trait and then on another, rather than for the rater to rate first one subject on all the traits and then another subject. Shen(37 and 38) contributes some improvements in statistical procedure. The present writer(11) has shown that reliability may be very markedly increased by splitting a trait up into a number of sub-traits, rating these sub-traits separately, and then combining them all into one rating. Other interesting developments, too numerous to mention here, are summarized by Watson(52).

*The Voelker Type of Test.*—Perhaps the most promising, because the most objective, type of personality test is the type which follows the technique of Voelker's(48) very original study published six years ago. In this sort of test the subject is presented with an actual situation—for instance, an opportunity to cheat in school—in which his honesty is tried. The reaction of the child himself, rather than another's opinion, thus forms the basis of the score.

In the period under review, Voelker's technique has been widely employed. Refinements have been introduced, but no radical changes of method. This type of test was used extensively by Termon's assistants in his remarkable study of genius in children(43). Raubenheimer(33) published an extensive monograph, using this technique. Cushing and Ruch(7) have used it in studying delinquent girls. Woodrow and Bemmels(54) are the first to adapt it to the capacities of pre-school children. Although Marston's study of the emotions of young children(28) was not directly inspired by Voelker's work, yet its general method is similar enough to warrant its inclusion here.

*The Psychoneurotic Questionnaire.*—The Woodworth Psychoneurotic Inventory has yielded some interesting results. In its original form the test consisted of a number of questions designed to reveal psychoneurotic tendencies. Thus, among other things, the subject was asked whether he had trouble walking in the dark, whether he preferred to be alone, and similar ques-

tions. As modified by Laird(21 and 22), the answers to these questions were not given by a simple *Yes* or *No* as in the original form, but by marking a cross at any point on a line, thus making possible any response from a categorical affirmative to an equally emphatic negative. In other words, it was a combination of questionnaire and graphic rating scale. Hoitsma(15) published data on the reliability of the test thus modified, and Laird himself(23) has used it to study the effects of sex indulgences. Guthrie(13) used it to study introversion and extroversion and found that it did not correlate well with other measures of these traits. Slawson(39) used another modification of the original Woodworth test to study psychoneurotic tendencies in delinquent boys.

*Stanford-Binet as a Personality Test.*—It has been suggested that scattering on the Stanford-Binet might be a useful pathognomic sign. This suggestion is being gradually discredited. In 1918 Pressey and Cole(32) thought that scattering might indicate malingering and temporary psychotic disturbances. Four years later Wallin(50) believed that epileptics and psychotics as groups showed a greater tendency to scatter. But the same writer in a recent study(49) has gone over the whole question thoroughly and demonstrated that scattering indicates nothing whatever.

Terman(44) suggested that the fables test in the Stanford-Binet scale ought to be a good test of moral judgment and useful in the study of delinquents, but Lowe and Shimberg(25), comparing the scores of a group of delinquents and non-delinquents on this test, find no significant differences between the two groups.

*The Pressey X-O Tests.*—The Presseys first presented their cross-out tests in 1919 and 1921, but, although these tests are among the oldest of personality tests, they continue to be useful. Chambers(5) uses these tests to study the emotional maturity of 621 children. Tjaden(45) studied delinquent boys with this technique but found little significant difference between them and non-delinquents of equal intelligence. Chambers' work(4) with the X-O tests as prognostic of college success has already been mentioned.

*Moral Knowledge Tests.*—This type of test continues to be used extensively. Among the most significant results recently

published are a paper by McGrath(26) and a monograph by Hartshorne and May(14). The former extends her technique to the study of the pre-school child and draws some interesting and valuable conclusions on the dawn of moral ideas in the child mind. The latter authors have brought together in one monograph a number of previously published papers. Their work is the most extensive and thorough yet published in the field. It is intended to serve as a basis for moral training.

*Some New Tests.*—Watson(51) has published a test of fair-mindedness. He presents some interesting results. In a number of case studies he discusses the prejudices of certain individuals and in another place he compares the prejudices of various groups, for example, of the Catholic and the Protestant students in a normal school. Morgan and Hull(31) present a test of persistence which is a combination of an objective test with a rating scale. The subject is given a series of maze problems which become progressively more difficult until the last one, which is impossible. The experimenter rates the subject's reactions on a scale. Karwoski and Christensen(17) have developed a test for art appreciation. Fenton(9) made an interesting study of cheating during examinations. Symonds(42) presents a social attitudes questionnaire. Lentz(14) has made some interesting contributions to the technique of personality test construction.

Two scales which yielded negative results deserve mention. Uhrbrock(46), working with 253 University of Wyoming students, found no significant differences in the Thorndike score between students who declared themselves more interested in ideas, in persons, and in things. Schwesinger(35) tested knowledge of slang but found that the results bore no demonstrable relation to known character traits.

To summarize—the last three years have been extremely productive in the field of personality tests. Both the quantity and the quality of the tests have grown by leaps and bounds. We seem to be on the threshold of a period when these tests will be used almost, or quite, as freely as we now use intelligence tests.

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PAUL HANLY FURFEY.

## NOTES ON THE TEACHING OF RELIGION

The Rev. James J. McHugh, Diocesan Superintendent of Schools of San Francisco, has sent us a Course of Study for Sunday Schools. Father McHugh writes:

"We have endeavored to organize the Sunday School work in this Archdiocese and put it on a standard basis. The supervision of this work has been placed under the Superintendent of Schools, and the actual teaching is in charge of the Sisters of the Holy Family, who are aided in their work by about four hundred lay teachers. These helpers are organized and known as "The Sponsors." At their monthly meeting lectures are given on the method of teaching, on the doctrine of the Church, and the principles are demonstrated. On every Tuesday night they attend lectures on Church Music and Liturgy. These classes are conducted by Father Boyle. On Wednesday evenings the Sponsors go to St. Ignatius College for lectures on Apologetics.

"The 'Course' has been in use for three years, with the result that the Sunday School classes have become more interesting and instructive, and Christian Doctrine is no longer the lifeless question and answer routine."

The course of study will be reviewed in a future issue.

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"There is a piece of work I should like to recommend to some of our religious teachers," writes Miss Ellamay Horan of Chicago. "It is the preparation of books of spiritual reading for children in the elementary school. I have made every possible effort to come in contact with books of this character. Comparatively speaking, but very few such books exist. My statement is made after a detailed investigation.

"Today in our schoolrooms children are given opportunity to come in contact with a variety of books—story books, nature books, travel books, etc. With a purpose that is several fold we recommend to teachers that they give children, from the primary school on, a great many contacts through a variety of reading experiences. In particular we desire that our children be given, at their own level, worth-while interests for later on. We realize, too, that if their reading experiences are varied in school, if reading interests are created of a type that goes beyond

the current fiction level, this will probably carry over into adult life. But what are our religious teachers to do about that type of reading that is commonly known as 'spiritual reading'? Of the mass of books that are provided for the growing child to read, how many are of a nature to make him love God more, to practice virtue, to honor Our Lady and the saints?

"It seems to the writer that no one is better able to meet this need than our religious teachers themselves. What a beginning it would be if each religious order engaged in teaching would produce one book of spiritual reading for children during the coming year. Hosts of religious are prepared for this work. They write well, they know children and their interests, they have studied the spiritual life, they have libraries of spiritual books at their disposal."

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The Rev. John I. Barrett, LL.D., Diocesan Superintendent of Schools of the Archdiocese of Baltimore, together with his supervisors, is at work on a new course of study in Religion. Dr. Barrett refers to the project in his Annual Report, as follows:

"This year the Community Supervisors are undertaking the formation of a new Course of Religion. Throughout the country at the present time there is a certain amount of dissatisfaction with the methods of teaching religion. Many of our leaders feel that there is a decided weakness in the present syllabi of religion. At the last meeting of the National Catholic Educational Association, one of the chief topics of discussion was the teaching of religion in college, secondary and elementary schools. The aim in our new course will be to offer a remedy for this weakness, so that the teaching of this most important subject will be bettered in our schools. It is hoped to have this new course ready by the end of the present year."

GEORGE JOHNSON.

## REVIEWS AND NOTICES

**Religions Past and Present:** An elementary account of comparative religion, by Bertram C. A. Windle. New York and London: The Century Company, 1927. Pp. 308. Price, \$3.00.

This latest work from Dr. Windle's prolific pen gives an excellent popular account of the many phases of primitive religion and of the chief religions of the past and present. It is not intended for the specialist but for the general reader. Consequently it contains no new facts and no new theories. Instead it gives a bird's-eye view of the whole field, in simple language, with a wealth of concrete illustration, and as the fruit of a sane balanced judgment and good sense.

In courses in religion and in the social sciences questions are frequently raised that call for acquaintance with the facts and current theories in comparative religion. Dr. Windle's work will prove of high value as a reference work for consultation by teachers or students who have not the time nor opportunity to go into the subject as specialists. It happens, too, to be the only available Catholic work on comparative religion in English. The five-volume "History of Religions" published by Father Martindale in 1911 is now out of print, and besides gives very scant attention to primitive religion. The articles on primitive religion in the Catholic Encyclopedia are very good but need considerable revision in the light of the newer facts. Archbishop Le Roy's "The Religion of the Primitives" is excellent on the side of its African data but is rather sweeping in its generalizations for the world at large.

Dr. Windle has had the happy thought of appending to his work a short selected bibliography of the chief standard secondary sources in comparative religion, with brief critical comments on most of them. This bibliography alone is worth to any school the price of the book.

JOHN M. COOPER.

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**A History of Philosophy,** by Leo F. Miller. New York: Joseph F. Wagner, Inc., 1927.

From the author's preface we gather that the present volume "is intended for serious-minded readers and for students who require an introduction to the standard works in the history of

philosophy." We are also told that the book is frankly written "on Scholastic principles." The writer's style is frequently concise and clear enough, but his statements are not always accurate. Speaking of the primary sources of Greek philosophy, he states that "the principal works of Plato and Aristotle and most of the writings of the later philosophers are extant." One must observe that not only the principal works but all the published writings of Plato are extant, whereas those of later Greek thinkers, as the Stoics and Epicureans, are available, unfortunately, only in fragments. The author leaves one under the impression (p. 39) that Socrates' warfare against the Sophists cost him his life. This is scarcely exact. It must be remembered that many in Athens held Socrates himself to be a Sophist. It is also to be remarked that after the appearance of Werner Jaeger's works it is no longer permissible to state (p. 48) that practically all of Aristotle's writings were composed during the last twelve years of his life.

One is quite astonished to find that the author lists the work *De Rerum Principio* among the authentic works of Duns Scotus. He appears to be totally unaware of the recent advances in Scotistic research. He repeats the opinion which ascribed to Scotus the division of matter into *materia primo-prima*, *materia secundo-prima*, and *materia tertio-prima*. This doctrine is found in the spurious work *De Rerum Principio*. If the excellent writings of E. Longpré were unknown to the author it is difficult to see how he overlooked the reliable information contained in De Wulf's *History of Mediaeval Philosophy*, which, by the way, he includes in his bibliography. Such an oversight is unintelligible.

The author's treatment of modern philosophy is woefully inadequate, for, whereas he has very little to say on contemporary philosophy in the United States, not to mention present currents of thought in Europe, he devotes 150 pages to Patristic and mediaeval philosophy and only 90 pages to modern and contemporary philosophy. Many will surely regard this as a striking disproportion. The work betrays not only immaturity of thought and insufficient acquaintance with the subject, but even a certain carelessness in preparation and execution which has robbed the author of an excellent opportunity to render the cause of philosophy a real service.

JOHN J. ROLBIECKI.



**Measurements in First Year Algebra**, A Study of Their Present Status, by Sylvester Schmitz, O.S.B., M.A. Educational Research Bulletins, Vol. I, No. 9, Sept., 1926. Catholic Education Press. Price, 35 cents.

This monograph is a critical survey of all the measurements of algebraic ability that have appeared prior to April, 1926. The numerous educational tests for both elementary and secondary school subjects that have flooded the market in recent years are astounding. In consequence, busy teachers desiring to make a rational selection of a satisfactory test for a given field find themselves hopelessly submerged beneath this mass of material unless they have kept pace with the whole testing movement and studied the individual tests as they appeared. But, since few teachers have been so fortunately situated and, since the teacher's time for research purposes is usually rather limited, a critical survey of all the existing measurements in a given field, such as the one under consideration, will satisfy an urgent need. The author classifies the various tests according to the function for which each was intended, whether diagnostic, prognostic, vocational or for survey purposes.

This classification will appeal not only to instructors in teachers' colleges and schools of education as a valuable guide in the discussion of the different instruments, but also to prospective teachers enrolled in the course of Educational Measurements, as an effective and economical method of gaining a clear and comprehensive view of the work done in this field. Besides giving a brief description of each test, supplemented at times with suitable illustrations, the author gives a detailed criticism of the merits and demerits of each. These criticisms are based on the conformity or nonconformity of the instrument with certain recognized norms or principles of test construction as determined by numerous investigations and studies reported. One by one the instruments are eliminated on account of some serious objection resulting from nonconformity with one or more of the essential requirements of a good test, such as agreement with educational objectives of algebra, time required to administer and score the test, the reliability of the instrument, standardization and so forth. As a result of this study, the author finds that only one of the many instruments for the measurement of algebraic ability has met with any decided success

and that even this is not satisfactory from every point of view. After showing the need for a new measuring instrument in the field of First Year Algebra, the author suggests a plan for the construction of such an instrument and briefly states the requirements that it should satisfy. Many teachers will be surprised to learn that a satisfactory test for determining a pupil's chances of success in high school mathematics has been constructed. A more widespread use of this series of tests (Prognostic Tests) is likely to eliminate considerable loss of time on the part of high school students. School officers responsible for the vocational guidance of pupils will find in the Thurstone Vocational Test a means to assist their charges in selecting a career. Teachers, on the alert for the best advices to facilitate the building up in their pupils of efficient mechanical habits in manipulating many of the algebraic processes, will find in the Rugg-Clark Practice Tests an aid to their teaching technique.

It is a pleasure to note in connection with the monograph under review how the representative of the oldest teaching Order of the Church is on the alert to avail himself of the achievements of the new education. This is only another instance of the wisdom of the Orders of the Church in retaining the best of the old while eager to assimilate the best of the new.

FELIX M. KIRSCH, O.M.CAP.

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**Economic and Social History of the United States**, by Isaac Lippincott and H. R. Tucker. New York: D. Appleton & Company, 1927. Pp. xxiii + 635.

This is a good sized text in American industrial history by Prof. Isaac Lippincott of Washington University (St. Louis), the author of an excellent college book on the *Economic Development of the United States*, and an associate, Mr. Tucker, a teacher of social sciences in the St. Louis public high schools. It is a good, logical, full, clear survey of America's industrial rise with probably too much stress on the colonial period and upon political history, which, however, in our faulty educational system cannot be taken for granted. As far as the reviewer is aware there is no better book on the market; though, like other surveys of our economic life, it fails to summarize and picture essentials in so skillful a fashion as does Professor Cheyney in

his *Social and Economic History of England*. If a fair knowledge of American political history could be presumed, a manual of this type might easily be cut in half.

As Catholic high schools are chiefly of the academic rather than of the commercial type, this book can hardly be used as a text. Indeed a modernized political history which stresses the social, intellectual, and economic phases of American life and weaves all the strands into a logical interpretation of American development is far more desirable and serves the general purpose, cultural and material, of the average high school course. However, such a text might well be supplemented by readings from a book like that of Lippincott and Tucker, which should be useful on the reserve shelf for teacher and pupil who would seek specialized information. RICHARD J. PURCELL, PH.D.

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**The Constitution of the United States (1787-1927)**, by James M. Beck, edited by Edwin L. Miller and C. C. Barnes. New York: George H. Doran Company, 1927. Pp. 207.

James M. Beck's "Constitution of the United States," a full, scholarly, conservative, conventional summary of the framing and development of the Constitution, has been edited in this abridged form for high schools by Messrs. Miller and Barnes of the Detroit public schools. Like the large volume, this text carries a foreword by President Calvin Coolidge in which he stresses the importance of a study of the Constitution as an essential part of the education of American youth and appeals in these critical days for its active support as the bulwark of American liberties. As a number of states have wisely made the study compulsory and as the national oratorical contests have popularized the Constitution, this little book will appeal to schools as a reference work if not a text. It may be used to advantage in connection with the course in civics, which should emphasize the Constitution and the elements of our working government, federal, state, and local, rather than the non-essentials of our social organization. If the pupils do not find time to read the volume, a conscientious teacher can easily master its contents and supplement the shamefully brief materials found in even the better civics books or American histories by class talks based on this handy little manual.

RICHARD J. PURCELL, PH.D.

**Has the Immigrant Kept the Faith?** by the Rev. Gerald Shaughnessy, S.M., A.B., S.T.D. New York: The Macmillan Company, 1925. Pp. 289.

The subject of the growth of the Catholic Church in the United States has engaged the attention of many investigators. Both friend and foe have examined the problem of the Church's growth. But no previous investigator has gone into the subject so thoroughly as the author of the present book. Dr. Shaughnessy has spared no pains. His bibliography covers nine pages and is indicative of the vast amount of research undertaken in the preparation of the book. In fact, we do not see what more could be done just now to ascertain the facts of the matter. The conclusions arrived at are consoling to everyone who has at heart the spreading of God's kingdom on earth.

However, the author admits the unreliability of many statistics that he had to deal with. For instance, he points out how unreliable are many of the figures given in the Official Catholic Directory (pp. 200-201):

The Catholic population of the Archdiocese of Boston for the years 1910, 1916, 1920 and 1924 is given as 900,000; of Chicago it is listed as 1,200,000 in 1906, and 1,150,000 in 1910, 1916, 1920 and 1924 (the apparent decrease being due to the erection of the Diocese of Rockford, with an estimated Catholic population of 50,000, out of a part of the See of Chicago, in 1908); the number of Catholics in the Cincinnati Archdiocese is given as 200,000 for the years 1900, 1906 and 1910, and in 1924 the estimate is 218,000—a supposed 9 per cent gain from all sources in twenty-four years; Dubuque numbered 111,000 in 1910, 1916 and 1920 and only 114,000 in 1924; New York reports 1,200,000 in 1900 and 1906 and 1,219,920 in 1910 and 1916. The estimate for the latter for 1924 is 1,273,000, recording a gain of 6 per cent from all sources in twenty-four years!

Dr. Shaughnessy justly adds:

Were one to accept such statistics, he would be accepting the statement that the Catholic population of such Catholic centers as Boston, New York, Chicago, Cincinnati and Dubuque actually remained stationary for periods of from ten to fifteen and even twenty-five years in length. A further comparison of statistics for other dioceses reveals the same conditions.

In the face of such unreliable figures, we might ask whether the situation would be improved if Congress would act on the

resolution passed by the Lutheran Statistical Association at its meeting held on January 13, 1926, to have a question inserted in the regular 1930 Census to ascertain the religious denomination or the religious preference of individuals. We are skeptical on this point after reading what Dr. Shaughnessy tells us (p. 198) about the difficulties encountered by the officials of the Census Bureau in their 1916 report on religious statistics. Hence we think that even Dr. Shaughnessy's scholarly book does not yet represent the last word on this very complex problem.

FELIX M. KIRSCH, O.M.CAP.

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**Aesthetics and Art in the *Astree* of Honore D'Urfe**, a Dissertation submitted to the Catholic Sisters College by Sister Catharine MacMahon, of the Ursuline Nuns.

It is always a hard task to comment upon a work of erudition, especially on a subject like this one. As a matter of fact, *L'Astrée* had been practically forgotten for a long time, and I do not believe that many people, even among the best scholars, can boast of having read it from beginning to end. It was considered to be one of those enormous novels of the XVII century, such as *Polexandre*, by Gombreville, or *Clélie*, and *Cyrus*, by Madeleine de Scudéry—huge volumes in which the plot is always the same: a chivalrous young man loves a beautiful girl, and the question is to know when and how the boy, after having destroyed scores of frightful foes and foiled the most dastardly schemes, will be able to wed the young lady. At every moment, a newcomer relates his own adventures and love affairs, which have nothing to do with the main subject; the characters, whatever they are, French, Romans, Spanish or Turks, shepherds, learned men or princes, invariably speak the elaborate language of Louis XIV's court. The authors not only disregard historical events with a disconcerting tranquillity, but show their absolute ignorance of the manners and customs of the countries where the action takes place. The best excuse for these heavy novels seems to be an unquestionable delicacy in the analysis of passions and intimate feelings.

While enjoying the privilege of being considered not quite so boresome, *L'Astrée* was classified among these books. Of course, everybody knew that its former success had been tre-



mendous, and recognized that d'Urfé's work had exercised a very wide influence. But if *L'Astrée* reflected the literary and artistic tastes of three centuries ago, if it had met in its time with the warmest welcome, it was none the less today, and forever, utterly out of fashion.

Sister Catharine MacMahon considered as an injustice the oblivion into which d'Urfé had fallen. A careful study of *L'Astrée* led her to think that this book, far from being the result of established preferences, had been, on the contrary, the source of a new style, of a new era. In writing it, d'Urfé had not followed a fashion, but given to his contemporaries an heretofore unknown ideal, from which French literature, arts and manners received a strong and decisive impulse. In fact, they would have probably taken a different direction if *L'Astrée* had never existed.

Let it be said, at first, that Sister Catharine has solved this almost paradoxical problem of embodying a work of erudition in an attractive, a pleasant, a charming form. Her dissertation gives the desire to read *L'Astrée*; the old and long novel suddenly appears fresh and new, full of light, tinged with heroism and grace—a little artificial, perhaps, but so exquisitely delicate! . . . Sister Catharine penetrated in the very soul of Honoré d'Urfé, and this achievement was accomplished through indefatigable researches, a long, strenuous study, a complete identification of thought with the author of *L'Astrée*.

The dissertation is clearly presented, and divided into twelve chapters, which are followed by a conclusion and a bibliography. The first chapter deals with the history of the d'Urfé family, and the aesthetic formation of Honoré, his life, his associations. Then Sister Catharine takes up the study of the book proper. Her first aim is to find out the theory of the beautiful and its applications; yet the moral and philosophical aspects are sufficiently examined. Little is to be said about the plot; in reality, there is no plot. The action takes place during the V century, in a remote part of Gaul left untouched by the German invasions, and peacefully governed by the queen Amasis. A young shepherd, Céladon, loves a shepherdess, Astrée, who believes him unfaithful and orders him not to see her again. The poor boy attempts to drown himself in the river Lignon, and is rescued by

Galatée, a princess, who wants to marry him, but he refuses; he loves Astrée too much. At the end the girl is moved by this constancy and recalls Céladon, whose sincerity has been proved by the "Fountain of the truth of love." This would today furnish just enough matter for a short story—and a very little animated one! . . . Yet the adventures and trials of Céladon go on during four big volumes, although interrupted by long digressions brought into the story by secondary characters.

But Sister Catharine's point of view stands as follows: Do not read *L'Astrée* as an ordinary novel. You must consider this book exclusively as a psychological study, a complete, and in many respects an excellent guide for moral and love problems, a work in which all arts are represented and spoken of with a rare competence. D'Urfé has expressed there his sentiments and his ideals; the work is good, because the man was good.

She points out the extreme accuracy of the characters, all clearly different: Céladon, a sympathetic young fellow, simple, loyal, brave, maybe too naive, but anxious for moral perfection; Astrée, of course soundly honest, but with a tendency to vanity and caprice; Phylis, the type of the gentle and a little pedantic "Précieuse," with whom the charming Roxane of Rostand in "*Cyrano de Bergerac*" has some connections; Sylvandre and Diane, the intellectual lovers; Galatée, the siren; Hylas, the skeptic; Euric, the chivalrous warrior, etc. All passions, virtues, and faults are thus personified, and the great merit of d'Urfé is precisely of having not invented complicated events. His characters having been given well-defined inclinations, he places them in a well-defined situation, and lets them go.

Sister Catherine also reminds us that the scenery of *L'Astrée* is exact. D'Urfé, situating the story in his native country, Forez, in the eastern part of central France, where his castle was, described a familiar landscape: hence the atmosphere of truth prevailing all along the novel. Moreover, except for the "Fountain of the truth of love," everything in *L'Astrée* has an appearance of reality, and the book marks a transition from pure fancy to likelihood.

Sister Catharine demonstrates that d'Urfé has poured out in his book all his artistic sense, as well as his emotions and his

sincere Catholic faith. In fact, although they are supposed to be pagans, the characters of *L'Astrée* are good Christians! . . . Sister Catharine shows us how d'Urfé loved the creation through the Creator, how his worship of beauty was an adoration of God. And it is really a pleasure to see how all these sentences are linked together; one thought leads to the other with a clear logic, and, at the same time, let it be repeated that Sister Catharine's style is charmingly easy to read. Indeed, this dissertation, which sometimes reaches the greatest philosophical questions, can be studied without effort; the reader follows the argumentation which such a facility that he is under the impression of having always thought the same things.

Two chapters are devoted to the application of the theories of beauty to nature, for d'Urfé understood and loved nature, a quality which was not imitated by the coming generation, exclusively fond of reason. And d'Urfé's love for nature had perhaps very far-reaching consequences, for as Sister Catharine says: "Rousseau has received much credit for introducing a return to nature in literature, but it was because he read the beautiful descriptions of the landscape of the country of the *Astrée* that he determined to visit this section of France. He is certainly indebted to the *Astrée* for his love of nature, and therefore to d'Urfé is due at least part of the credit for the movement which culminated in the Romanticism of the XIX century."

While Sister Catharine does not expressly say that d'Urfé was a forerunner of Chateaubriand and Victor Hugo, there is a striking point of similarity.

If I had to tell what I personally think of *L'Astrée*, I should venture the opinion that nature, as seen by d'Urfé, is somewhat conventional, but Sister Catharine would at once answer that d'Urfé was such an artist that he cannot help embellishing everything he touches! . . . This is, of course, the mark of the true classical spirit: avoid all coarseness, disregard whatever is vulgar and low, describe men as they should be according to Catholic morals and ethics. *Astrée* and *Céladon* are a *Chloe* and a *Daphnis*, but they are Christians, and French. The fact that d'Urfé was a sound believer accounts for this. He craved for the perfection of the form according to the standard of his time,

but he was not a mere dilettante; his contention was that art has an educational, almost an edifying purpose. Sister Catharine reveals in him a man whose theories were based upon direct observation, minute descriptions, faithful reproductions of life, with a touch of idealism. We shall find this again later on, with Chateaubriand, and even Flaubert. And not only was d'Urfé a conscientious writer and a keen analyst: in *L'Astrée*, he speaks with knowledge about all the arts, and his book has been a source of inspiration for innumerable painters, sculptors and musicians. It is doubtful whether he intended to lay down some artistic theories. Through the conversations of his characters and his wonderful descriptions, he expressed his ideas, but an aesthetic school has come from his work. It is because of *L'Astrée* that pastorals became in fashion; that "high-born ladies played at being shepherdesses, similar to those created by d'Urfé"—and we must thank d'Urfé, as well as Boucher and Watteau, for these figures of peasant girls, so delightful in their artificiality, so exquisitely false with their gorgeous dresses, their bare feet and their crooks decked with ribbons, which characterized the French school of the XVIII century.

But shall we not thank Sister Catharine MacMahon herself, for having thrown a new light on the work of a good and genial man? . . . Too much praise would offend her modesty; yet plain justice compels us to say that she performed a splendid work. There is not, in her dissertation, a single sentence, a single note which is not supported by some authority or quotation. The bibliography will give an idea of the books she has been obliged to read or consult. It has always been agreed upon that *L'Astrée* contains a world. Sister Catharine has studied it under all its aspects and forms; with the utmost care, with an indefatigable patience, she examined the influence of the book on all branches of human art, music, poetry, painting, tapestry, faience. Her work is certainly more than a dissertation. Its documentary value assures it a place in the mind of every person interested in French literature and art.

ANDRE M. BENETEAU.

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